

REMARKS/ARGUMENTS

Applicants acknowledge receipt of the Office Action dated May 3, 2005. In that Action, the Examiner rejected claims 1-14 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,448,227, issued to *Orban et al.* (hereinafter *Orban*).

In response, the Applicants respectfully request consideration of the following remarks and arguments and withdrawal of the rejections.

Rejections based on 35 U.S.C. § 102(b)

The Examiner rejected claims 1-14 under 35 U.S.C. § 102(b) as being anticipated by *Orban*. Claims 1 and 7 are independent claims. Claims 2-6 depend from claim 1. Claims 8-14 depend from claim 7.

In order to anticipate a claim, the reference must teach every element of the claim. MPEP 2131. During claim interpretation, the Examiner is expected to consider the broadest reasonable definition of the claim terminology. MPEP 2111. This means that the words of the claim must be given their plain meaning unless the applicant has provided a clear definition in the specification. MPEP 2111.01.

Orban discloses a measuring-while-drilling (MWD) system which includes a sensor sub positioned at the lower end of a downhole motor assembly. The sub houses instrumentalities that measure various downhole parameters. Sonic or electromagnetic telemetry signals representing these measurements are relayed to the MWD tool. The MWD tool transmits this information to the surface through mud pulses produced by passing the drilling mud through a valve that repeatedly interrupts the mud flow. These pressure pulses are detected by a transducer at the surface.

With respect to claims 1 and 7, both claims require a second body at least partially disposed within an electroactive fluid. *Orban* does not disclose an electroactive fluid. An electroactive fluid is defined in paragraph [0028] of the current application as:

"a fluid, gel, or other material having physical properties that change in response to a magnetic or electric field."

The Examiner asserts that *Orban* discloses an electroactive fluid (mud) that flows to the turbine 26 to generate electrical power to the system, with reference to Col. 8, lines 8-10. There are no teachings in *Orban* that indicate that the drilling mud is "a fluid, gel, or other material having

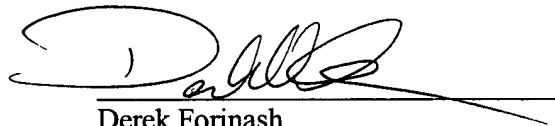
physical properties that change in response to a magnetic or electric field." Those skilled in the art would recognize that conventional drilling muds are not electroactive fluids under the definition found in the current application. Thus, based on the definition of an electroactive fluid included in paragraph [0028] of the current application, the drilling mud in *Orban* is not an electroactive fluid. Because *Orban* does not disclose an electro active fluid, it also does not teach a second body at least partially disposed within an electroactive fluid as is required by claims 1 and 7. Therefore, because *Orban* does not disclose an electroactive fluid, it can not anticipate the scope of claim 1 or claim 7.

Thus, for the reasons discussed above, *Orban* does not anticipate the scope of claim 1 or claim 7. Claims 2-6 depend from claim 1 and are also not anticipated by *Orban*. Claims 8-14 depend from claim 7 and are also not anticipated by *Orban*.

Conclusion

This is believed to be a full and complete response to the Office Action. Applicants believe that all claims are free of the prior art and are in condition for allowance. Allowance of all pending claims is respectfully requested. If the Examiner believes that a telephonic interview would be beneficial, please contact the undersigned at the telephone number listed below.

Respectfully submitted,



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